

MISSOURI NATURAL HERITAGE DATABASE

ELEMENT OCCURRENCE RECORD DATA FIELD DICTIONARY

August 2002

This data field dictionary should be used by transcribers and mappers of element occurrence records (EORs) and users of EOR printouts and ArcView shapefiles. Fields to be completed by transcribers are in italics. Additional information about the EOR database can be obtained by contacting the MDC Heritage Coordinator.

There are currently six ArcView shapefiles that are updated quarterly (none contains precision unmappable EORs): heritage.shp=all data fields and all EOR centroid* points; hertpoly.shp=all data fields and tracked EOR polygons; erhert.shp (and erpoly.shp)=selected fields and tracked centroid points (or polygons) minus precision general and eorank historic or destroyed; erfield.shp (and erfieldpoly.shp)=all fields and tracked centroid points (or polygons) minus precision general and eorank historic or destroyed.

<u>GIS FIELD</u>	<u>BCD** FIELD</u>	<u>DEFINITION</u>
	<i>ACTION</i>	Recommended protection action assigned from the previous Protection Planning Meeting (moved to PROTCOM when action completed). Protection Planning Meetings have not been held since 1994.
	<i>ACTIONLIST</i>	Status of ACTION completion. A = active (followed by 1, 2, or 3 for priority, with 1 being the highest), I = incomplete, C = completed.
	<i>ACTIONRESP</i>	Name of person responsible for completing the ACTION.
<i>BESTSOU1***</i>	<i>BESTSOURCE</i>	The single best source for additional information about the EO, not necessarily the most recent. This may be a person, specimen, literature report, or file.
<i>COMMENT1</i>	<i>COMMENTS</i>	Any information not covered by the other fields. Includes discrepancies, notes, associated natural communities, etc.
<i>COMMSGNF</i>	<i>COMMSIGNIF</i>	Community Significance, indicates whether the community is significant (S), exceptional (E), or notable (N). Used for natural community EOs only.
<i>CONTAINED</i>	<i>CONTAINED(1)</i>	Y (Yes), N (No), ?, or blank depending upon whether the EO is contained in MANAME(1) (see below). Y if the element is known to occur <u>entirely</u> within MANAME(1); N if the element is known to occur within USFS or USNPS Purchase Unit boundaries but is not on land owned by the USFS or USNPS (i.e., private inholding); ? if the element occurs <u>partially</u> within MANAME(1) and partially on another managed area or private land; blank if the containment is unknown (used only on minute and general records).
	<i>CONTAINED(2,3...)</i>	Y, N, ?, or blank depending upon whether the EO is contained in MANAME (2,3...). See CONTAINED(1) above.

	<i>COUNTYCODE(1)</i>	County code in which the centroid occurs. County codes consist of the first 4 letters of the county name preceded by the standard state abbreviation. Nonstandard codes are: Ray County, MORAYX; Scotland County, MOSCTL (Scott County, MOSCOT); St. Louis City, MOSTLC, (St. Louis County, MOSTLO); Marion County, MOMARN; Maries County, MOMARS.
	<i>COUNTYCODE(2,3.)</i>	Additional county codes into which the EO extends. See COUNTY(1) above. Most EOs will not have additional county codes.
COUNTY	COUNTYNAME(1)	County name in which the centroid occurs.
	COUNTYNAME(2,3.)	Additional county names into which the EO extends. Most EOs will not have additional county names.
DATEFST	<i>FIRSTOBS</i>	Date the EO was first reported at this site (YYYY-MM-DD).
DATELAST	<i>LASTOBS</i>	Date the EO was last observed extant at the site (YYYY-MM-DD). Never more recent than surveydate.
DATESURV	<i>SURVEYDATE</i>	Date of last field survey (YYYY-MM-DD), regardless of whether the EO was relocated.
DIRECTS1	<i>DIRECTIONS</i>	Written directions to the EO. Begin with surveysite and follow with precise directions to the occurrence using a readily locatable and relatively permanent landmark such as a town, road, or intersection. Cite distances as closely as possible (specifying road distances or air miles) and use compass directions.
ELCODE	ELCODE	Element Code, a 10 character alphanumeric code unique to an element (species or natural community). Species codes are assigned by NatureServe.
ELEV	MINELEV	Elevation in feet at the center of the centroid.
EOCODE	EOCODE	Element Occurrence Code, a 17 character alphanumeric code unique to an EOR. Consists of the ELCODE, EONUM, and the standard 2 letter state abbreviation (e.g., PDASC02050*001*MO is one occurrence of Mead's milkweed in Missouri).
EODATA1-5	<i>EODATA</i>	Data collected on the biology of the EO (e.g., population size, condition, viability, effort). List the plant community for natural community EOs. For example: 2002-10:Nagel – 10 fish sampled in 10 minutes of seining.
EONUM	EONUM	Element Occurrence Number, a 3 digit number unique to an element's occurrence. Assigned by Heritage mapper.

EORANK	EORANK	<p>A general ranking of the quality of the EO; assigned by MDC Heritage biologists. Because of species inconsistencies, contact Natural History Wildlife Ecologist-Heritage for clarification of animal EORANKs.</p> <p>Ranges from: A (excellent)-D (poor). (e.g., a large population of mature reproducing individuals occurring in an undisturbed area with no prospective human interference would receive the highest rank, A).</p> <p>Additional EORANKs: E=Extant, F=Failed to find, H=Historic, O=Obscure, U=Unranked, X=Destroyed; Qualifiers: I=Introduced.</p> <p>When using a combination of ranks, add a slash between them (e.g., A/B). EORANK should never be left blank.</p>
EORANKCM1	EORANKCOM	Eorank Comments, supporting reasons for the EORANK. For natural community EOs, includes an assessment of diversity, structure, exotics, stand age, and obvious disturbance.
EOTYPE	EOTYPE	For species elements (typically migratory animals) that manifest different types of occurrences (e.g., Bachelor colony - bats, Breeding site - migratory animals).
FEDSTAT	USESA	<p>Official federal status determined by the U.S. Fish and Wildlife Service. Not all elements have a federal status.</p> <p>E=Endangered T=Threatened C=Candidate proposed for federal listing PE=Proposed Endangered PT=Proposed Threatened</p>
FIRST_MARG	MARGNUM(1)	Margin Number, the sequential number for the order of mapping the occurrence centroid on the topographic map.
	MARGNUM(2,3...)	Margin Numbers on additional topographic maps. See MARGNUM(1) above. Most EOs will not have additional margin numbers.
GELCODE	GELCODE	Global community ELCODE, assigned from TNC's community classification. Used for natural community EOs only.
GELCONF	GCONFLEVEL	Global Confidence Level, the level of confidence that the GLOBALNAME has been assigned correctly (TNC community names are not a 1:1 match with Missouri Heritage). Values are 1, 2, or 3 with 1 being the greatest level of confidence. Used for natural community EOs only.
	GLOBALNAME	Global Name, the TNC "scientific name" for the community. Used for natural community EOs only.
	GLOBALSYN	Global Synonym, the TNC "common name" for the community. Used for natural community EOs only.

GENDESC1	GENDESC	Description of the general area or habitat where the EO was found. Include slope and aspect for natural community EOs.
GRANK	GRANK	Global Rank, a priority code assigned by NatureServe indicating the status of the element over its entire range. Ranges from: G1=Critically imperiled globally because of extreme rarity or because of some factor(s) making it especially vulnerable to extinction. to: G5=Demonstrably widespread, abundant, and secure globally, though it may be quite rare in parts of its range, especially at the periphery. Other GRANKs: G?=Unranked, GH=Historic, GU=Unrankable, GX=Extinct, HYB=Hybrid; Subranks: T=Taxonomic subdivision; Qualifiers: ?=Inexact numeric rank, Q=Questionable taxonomy, C=Captive or cultivated only.
GROUP	GROUP	The second character of the ELCODE, designating the element group (see TYPE below for definition of the first character). Vertebrate: A=Amphibian, B=Bird, F=Fish, M=Mammal, R=Reptile; Invertebrate: C=Crustacean, I=insect, L=Arachnid, M=Mollusk, P=Flatworm, T=Millipede; Vascular plants: D=Dicotyledon, G=Gymnosperm, M=Monocotyledon, P=Ferns and Fern Allies; Non-vascular plants: L=Lichen, B=Bryophyte; Natural Community: A=Aquatic, T=Terrestrial; Other: C=MDC Cave, F=Cavefish Recharge Area.
HABITAT	GENHABITAT(1)	Principle general habitat code in which the element can be found. BF=Bottomland forest, BP=Bottomland prairie, BS=Bottomland savanna, CC=Cave, CL=Cropland, CT=Cliff/talus, FS=Fen/seep, GG=Glade, GS=Gravel/sandbar, OS=Oxbow/slough, OT=Orchard/tree plantation, PH=Pasture/hayland (nonnative), PL=Pond/lake, RO=Roadside, RS=River/stream, SP=Sinkhole pond, SS=Spring/spring branch, SW=Swamp, UF=Upland forest, UP=Upland prairie, US=Upland savanna and woodland, WL=Wetland, ?=?.
	GENHABITAT(2,3,...)	Additional general habitat codes in which the element can be found.
LAT	LAT	Latitude of the centroid followed by the direction (always N [north] in Missouri) in degrees/minutes/seconds. (e.g., 39°42'03").
LONG	LONG	Longitude of the centroid (includes the first digit, 0) followed by the direction (always W [west] in Missouri) in degrees/minutes/seconds. (e.g., 0932032W for 93°20'32").
	N	Latitude of northernmost boundary of the EO.
	S	Latitude of southernmost boundary of the EO.

	E	Longitude of easternmost boundary of the EO.
	W	Longitude of westernmost boundary of the EO.
LATDEC	LATDEC	Latitude of the centroid in decimal degrees.
LONGDEC	LONGDEC	Longitude of the centroid in decimal degrees.
LTACODE	LTACODE	A four to six character alphanumeric code designating the Land Type Association in which the centroid occurs.
MA	<i>MANAME(1)</i>	Name of managed area that wholly or partially contains the EO. If the EO extends into two or more managed areas, <i>MANAME(1)</i> is the most interior of the nested managed areas. Designated Natural Areas should be listed first and Mark Twain National Forest (MTNF) should be last. Not all EOs are on managed areas.
	<i>MANAME(2,3...)</i>	Name of additional managed areas that wholly or partially contain the EO (these can be adjacent managed areas or larger managed areas containing <i>MANAME(1)</i>). List managed areas from smallest to largest.
MAPPER	MAPPER	Date of mapping and initials of person who mapped the EOR onto Heritage maps (YY-MM-DD III).
	MAPQC	Date of QC and initials of person who quality controlled the mapping of the EOR (YY-MM-DD III).
MATYP	MATYPE(1)	Managed Area Type. Five letter code designating the managing entity type, managing agency, and the area type (e.g., SNRSP is an area managed by the <u>S</u> tate Department of <u>N</u> atural <u>R</u> esources as a <u>S</u> tate <u>P</u> ark). Entity type: F=Federal, L=Local government, S=State, P=Private. Agency: AS=Audubon Society, BG=MO Botanical Garden, BS=Boy Scouts, CY=City, CO=County, DA=U.S. Army (Corps of Engineers), DF=U.S. Air Force, FP=Frank Powell Lumber Co., FS=U.S. Forest Service, FW=U.S. Fish and Wildlife Service, HY=MO Dept. of Transportation, JF=The James Foundation, LD=Leo A. Drey Foundation, MC=MO Dept. of Conservation, NC=The Nature Conservancy, NG=MO National Guard, NP=U.S. National Park Service, NR=MO Dept. of Natural Resources, OZ=Ozark Regional Land Trust, PF=Missouri Prairie Foundation, PO=Privately owned, PY=Pinnacles Youth Foundation, SE=Southeast Missouri State University (SEMO), SJ=St. Joseph Mineral College, SL=St. Louis University, SO=School of the Ozarks, SW=Southwest Missouri State University (SMSU), UM=University of Missouri. There are approximately 80 area types; some common ones are: CL=Community Lake, CP=City or County Park, HS=Historic Site, NA=Natural Area, NF=National Forest, RN=Research Natural Area, PP=Private Preserve, RS=TNC Registry Site, SA=Stream Access, SP=State Park, TR=Training Site,

WA=Wilderness Area, WR=Wildlife Refuge. Contact Heritage Coordinator if you would like the code for a specific area type.

	MATYPE(2,3...)	Managed Area Types of additional managed areas in which the EO is wholly or partially contained. See MATYPE(1) above.
MDCREGN	MDCREGION(1)	A standard 2 letter code for the MDC common field region in which the centroid occurs. NW=Northwest, KC=Kansas City, CN=Central, NE=Northeast, SL=St. Louis, SE=Southeast, EC=East Central, WC=West Central, SW=Southwest, OZ=Ozark.
	MDCREGION(2,3,...)	A standard 2 letter code for additional MDC regions into which the EO extends. Most EOs will not have additional MDC field regions.
	MERIDIAN(1)	Two character alphanumeric code for the meridian from which the U.S. Public Land Survey System range measurements were made. Always 5P (5th Principle Meridian) in Missouri.
	MERIDIAN(2,3...)	5P. See MERIDIAN(1) above. Most EOs will not have additional MERIDIANS.
MGMTCOM1	<i>MGMTCOM</i>	Comments on management needed, the chances of achieving this management, current management practices, etc.
MOFWISID	MOFWISID	Missouri Fish and Wildlife Information System identification code for an element.
NATDV	NATDIV(1)	A standard 2 letter code for the Natural Division of Missouri in which the centroid occurs. BR=Big Rivers, GP=Glaciated Plains, ML=Mississippi Lowlands, OB=Ozark Border, OS=Osage Plains, OZ=Ozark.
	NATDIV(2,3...)	Codes for additional Natural Divisions into which the EO extends. Most EOs will not have additional natural divisions.
NATSC	NATSEC(1)	A standard 2 letter code for the Natural Section of Missouri in which the centroid occurs. CR=Crowleys Ridge, ER=Elk River, ES=Eastern, GR=Grand River, LH=Lincoln Hills, LL=Lowlands, LO=Lower Ozark, LP=Upper Mississippi, LS=Lower Missouri, MO=Missouri River, MS=Mississippi River, OS=Osage Plains, SF=St. Francois Mountains, SP=Springfield Plateau, UP=Upper Mississippi, UO=Upper Ozark, US=Upper Missouri, WR=White River, WS=Western.
	NATSEC(2,3...)	Codes for additional Natural Sections into which the EO extends. Most EOs will not have additional natural sections.
NRANK	NRANK	National Rank, a priority code assigned by NatureServe indicating the status of the element in the United States. Similar to GRANK

above. Additional NRANKs: NA=Accidental, NE=Exotic, NP=Potential, NR=Reported, NRF=Reported falsely, NSYN=Synonym, NX=Extirpated; Subranks: B=Breeding status, N=Non-breeding status, Z=Zero occurrences; Qualifiers: ?=Inexact numeric rank, C=Captive or cultivated only.

ORDER	ORDER	The first 5 characters of the ELCODE designating the element order and family (e.g., ABNGA=animal-bird-nonpasserine-ciconiiformes-ardeidae; PDAST=plant-dicot-asteraceae; note: the third to fifth characters are not always the first letter of the name and they are not always the family name). There are 279 ORDER codes. Contact Heritage Coordinator if you would like the ORDER code for a particular species.
OWNACRON	<i>OWNER</i>	Owner of the site on which the EO occurs. If the private landowner's name is unknown, use "private." Give the ranger district for Mark Twain National Forest (i.e., USFS - appropriate Ranger District). The owner field should never be left blank on second precision EOs. Acceptable abbreviations include: DNR=MO Dept. of Natural Resources, L-A-D Foundation=Leo A. Drey Foundation, MDC=MO Dept. of Conservation, MODOT=MO Dept. of Transportation, MPF=Missouri Prairie Foundation, TNC=The Nature Conservancy, USCOE=U.S. Army Corps of Engineers, USFS=U.S. Forest Service, USNPS=U.S. National Park Service, USFWS=U.S. Fish and Wildlife Service. The GIS field contains "private" (rather than the landowner name) for all privately-owned sites. See MATYPE(1) above for list of ownerships.
OWNCOM1	<i>OWNERCOM</i>	Pertinent information about the landowner, including legal status of ownership, ownership intentions, address and telephone number, etc.
PREC	PRECISION	A code indicating the accuracy to which the EO can be located on a topographic map. S=second, mappable to 3 second radius (80M, exact location). Mapped as a circle with boundaries of any outliers drawn in. M=minute, mappable to 1 minute radius (1600M, about 1.15 miles) (e.g., location known to section). Mapped as a triangle. G=general, mappable to 5 mile radius (e.g., location given as "Ashland"). Mapped as a square. U=unmappable, the element cannot be located to a 5-mile radius. Incomplete, vague, incorrect, or no location information (e.g., location given as "Boone County").
PROTCOM1	<i>PROTCOM</i>	Comments on legal protection needed, the chances of achieving this protection, current protection status, etc. Contains ACTION field if action completed.
QUADCOD	QUADCODE(1)	Modification of the USGS topographic quadrangle map code on which the centroid occurs. A 7 digit number comprised of the first 5

digits of the USGS code, a number based upon the 6th digit letter sequence, and the last digit (e.g., 3809252 for 38092-E2).

	QUADCODE(2,3...)	Codes of additional topographic quad maps onto which the EO extends. See QUADCODE(1) above. Most EOs will not have additional quadcodes.																																																				
QUADNAM	QUADNAME(1)	Official USGS topographic quadrangle map name on which the centroid occurs. Written as it appears on the map excluding the state abbreviations (e.g., Diamond City for Diamond City, ARK.-MO.).																																																				
	QUADNAME(2,3...)	Names of additional topographic quad maps onto which the EO extends. See QUADNAME(1) above. Most EOs will not have additional quadnames.																																																				
SCOMNAME	SCOMNAME	Common Name for the animal or plant species. There is no common name for communities.																																																				
SEC	SECTION(1)	Two digit section number of the centroid (e.g., 01 for section 1).																																																				
	SECTION(2,3...)	Additional section number into which the EO extends within TOWNRANGE(2,3,...). Most EOs will not have SECTION(2,3...).																																																				
SIZE	SIZE	Acreage of natural community. For fragmented EOs, include total acreage but describe this acreage in GENDESC as the total of X number of fragments. Used for natural community EOs only.																																																				
SNAME	SNAME	Scientific Name for the species, including variety if appropriate. Community names were derived from Nelson's Terrestrial Natural Communities of Missouri (and approved by the Missouri Natural Areas Committee).																																																				
SOURCECD	SOURCECODE(1)	A 12 character alphanumeric code for the BESTSOURCE. Designated as: <div style="text-align: center;"> <table border="0" style="margin-left: auto; margin-right: auto;"> <tr> <td>___</td><td>/</td><td>___</td><td>/</td><td>___</td><td>/</td><td>___</td><td>/</td><td>___</td><td>/</td><td>___</td><td>/</td><td>___</td> </tr> <tr> <td>source</td><td></td><td>last 2</td><td></td><td>first 3 letters</td><td></td><td>tie</td><td></td><td>state</td><td></td><td>nation</td><td></td><td></td> </tr> <tr> <td></td><td></td><td>type</td><td></td><td>digits of</td><td></td><td>author's</td><td></td><td>breaker</td><td></td><td></td><td></td><td></td> </tr> <tr> <td></td><td></td><td></td><td></td><td>year</td><td></td><td>last name</td><td></td><td></td><td></td><td></td><td></td><td></td> </tr> </table> </div> <p>For example, the personnel sourcecode for Tim Smith is PNDSMI02MOUS (P (person) ND (no date) SMI (Smith) 02 (there is already a John Smith as 01) MO US). Article, book, map, and unpublished reports start with A, B, M, and U, respectively. Specimens start with S with the tie breaker portion of the code replaced with a 2 letter abbreviation for the housing herbarium/museum (contact Heritage Coordinator for a list of herbaria and museum codes). File sourcecodes start with FND followed by the 3 letter file code (BBA=Breeding Bird Atlas, CAV=Cave Files, DPP=Draft Prairie Plan, FIS=Computer Records of Missouri Fishes, HDB=Headwater Diversion Basin Files, HER=Herptile Computer Files, HRS=Heron Rookery Survey Files,</p>	___	/	___	/	___	/	___	/	___	/	___	/	___	source		last 2		first 3 letters		tie		state		nation					type		digits of		author's		breaker									year		last name						
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LTR=Long Term Resource Monitoring Project, MBD=Missouri Biospeleological Database, MEI=Missouri Mid-winter Eagle Inventory, MSS=Missouri Speleological Society, MUS=Computer Record of Missouri Naiads, NAF=Natural Areas Files, NAI=Natural Areas Inventory Files (NFI=Natural Features Inventory Files), OZC=Ozark Cavefish Files, PUR=Purple Loosestrife Files, RES=Rare and Endangered Species File, SLI=State Lands Inventory Files, WCP=Wildlife Collector Permit Reports, WCS=Wild Card Survey Files).

SOURCECODE(2,3...) Additional codes for all sources of information on the EO.

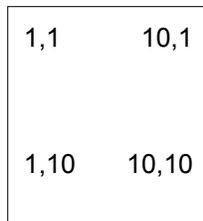
SRANK SRANK State Rank, a priority code assigned by MDC indicating the status of the element in Missouri. Similar to NRANK. SRANKs do not have subranks or qualifiers.

SSTATUS SPROT Official state status assigned to species listed in the Wildlife Code of Missouri. E=endangered. Not all species have a state status.

SUBSTRAT *SUBSTRATE* Brief description of geologic substrate.

SURVSITE *SURVEYSITE* The unofficial name of the site where the EO occurs. Usually the name of the nearest city, hollow, river, road, or landmark (e.g., Taylor Spring Cave, Engle Prairie). Surveysite should never be left blank.

TENTEN(1) A visual locator for the centroid on the Heritage map based upon an imaginary grid of ten horizontal and ten vertical spaces. Read from left to right and top to bottom. Quad corners would be assigned as:



TENTEN(2,3...) Tentens on additional topographic maps. See TENTEN(1) above. Most EOs will not have additional tentens.

TOWNRANG *TOWNRANGE(1)* Township and Range of the centroid. Written as:
0 ___ N 0 ___ E or W (e.g., 044N012W for T44N R12W)
township range

TOWNRANGE(2,3..) Additional townships and ranges into which the EO extends. See TOWNRANGE(1) above. Most EOs will not have additional townships and ranges.

TRACK SEOTRACK Element Occurrence Tracking: Y or N. Indicates whether the element is tracked in the database.

TRANSCRIB	TRANSCRIBR	Date of transcription and initials of transcriber of the EOR (YY-MM-DD III).
TRSNOTES	TRSNOTE(1)	Additional sections in which the EO can be found within TOWNRANGE(1) and specific quarter sections if the EO can be precisely located (e.g., N2SW4).
	TRSNOTE(2,3...)	Additional TRSNOTES into which the EO extends within TOWNRANGE(2,3...). See TRSNOTE(1) above. Most EOs will not have TRSNOTE(2,3...).
TYPE	TYPE	The first character of the ELCODE designating the element type: A=Vertebrate animal, I=Invertebrate animal, P=Vascular plant, N=Non-vascular plant, C=Natural community, and O=Other (includes MDC caves and Ozark and Spring cavefish recharge areas).
UPDATER	UPDATER	Update date (transcription date for a new record) and the 4-9 characters of the personnel sourcecode of the person updating (or transcribing) the eor (not data management). Assigned by Heritage Coordinator. Written as: YYYY-MM-DD <u> </u> / <u> </u> first 3 letters tie of updater's breaker last name For example, Tim Smith's sourcecode is PNDSMI02MOUS; if he updates or transcribes a record on April 3, 2000, the UPDATER field would be: 2000-04-03 SMI02.
WATERSHD	WATERSHED(1)	The 8 digit USGS Hydrologic Unit code for the centroid location (e.g., 10300103 for the Lamine River watershed).
	WATERSHED(2,3...)	Codes for additional watersheds into which the EO extends. See WATERSHED(1) above. Most EOs will not have additional watersheds.

*Centroid is the point in the approximate center of the entire spatial extent of the EO (placed on the site). Point at which the LAT/LONG is measured and at which the colored dot is placed when mapping.

**BCD (Biological Conservation Data System) is the Heritage computer program developed by The Nature Conservancy running on Advanced Revelation software.

***GIS fields ending in "1" contain the first 254 characters of a BCD unlimited text field.